Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1.(currently amended) A process for producing an ammonium polythiomolybdate of the formula $(NH_4)_2Mo_3S_{13} \cdot n\,H_2O$ where n is 0, 1 or 2 comprising:

(a) reacting an aqueous ammoniacal molybdate solution with hydrogen sulfide gas in a closed system at superatmospheric pressure until the H_2S is no longer absorbed by the solution, ~~said solution and said gas being in a closed system and the flow of said gas being regulated at an elevated pressure~~ to form a slurry ~~consisting essentially~~ of ~~a~~ solid ~~essentially all of which is~~ ammonium tetrathiomolybdate containing a portion of the starting molybdenum ~~and~~ in a mother liquor containing the balance of the molybdenum;

(b) heat soaking ~~the reaction product of step (a) at elevated temperatures up to about 200°C~~ the slurry of step (a) in a closed reactor in the presence of elemental sulfur at a pressure of 600-1000 psig whereby the ammonium tetrathiomolybdate is converted to $(NH_4)_2Mo_3S_{13} \cdot n\,H_2O$;

(c) cooling ~~said~~ the slurry of step (b) to ambient temperature;

(d) separating said solid from the major portion of said mother liquor;

(e) washing said solid with water ~~followed by removing the resulting water washes~~ to remove the remaining portion of said mother liquor and soluble impurities from said solid; and

(f) drying the resulting washed solid ~~at ambient temperature to form the $(NH_4)_2Mo_3S_{13} \cdot n\,H_2O$~~.

2.(original) The process of claim 1 wherein the ammonium polythiomolybdate is $(NH_4)_2Mo_3S_{13}$.

3.(presently amended) The process of claim 1 wherein the aqueous ammoniacal molybdate solution comprises MoO_3, $(NH_4)_2S$ and elemental sulfur.

4.(presently amended) The process of claim 1 wherein the superatmospheric pressure in step (a) is 5-50 psig.

5.(presently amended) The process of claim 1 wherein the heat soaking ~~temperature~~ in step (b) is conducted at a temperature of 175-200°C.

6. (cancelled)